What is claimed is

1.   An image reading apparatus, comprising:

an image reading device capable of reading image

5   data of a reference member;

a random noise suppressing device that suppresses random noise components in the image data of the reference member read by said image reading device; and

a detecting device that detects abnormality on the

10   reference member based on the image data having random noise components suppressed by said random noise suppressing device.

2.   An image reading apparatus according to claim 1, wherein said random noise suppressing device

15   suppresses random noise components by averaging the read image data of the reference member.

3.   An image reading apparatus according to claim 1, wherein said random noise suppressing device suppresses random noise components by carrying out an

20   interpolation process on the read image data of the reference member.

4.   An image reading apparatus according to claim 3, wherein said random noise suppressing device comprises a delay device that delays the read image

25   data of the reference member, and an interpolation device that carries out the interpolation process on the read image data of the reference member and the

image data delayed by said delay device.

5. An image reading apparatus according to claim 1, further comprising a shading correction device that carries out a shading correction based on the read

5   image data of the reference member, and wherein said random noise suppressing device suppresses random noise components in the image data on which the shading correction has been carried out by said shading correction device.

10   6. An image reading apparatus according to claim 1, further comprising a shading correction device that carries out a shading correction based on the image data having random noise components suppressed by said random noise suppressing device, and wherein said

15   detection device detects abnormality on the reference member based on the image data on which the shading correction has been carried out by said shading correction device.

7. An image reading apparatus according to claim

20   1, wherein said random noise suppressing device operates only when abnormality is to be detected on the reference member by said detection device.

8. A control program that controls an image reading apparatus and can be executed by a computer,

25   comprising:

an image reading module capable of reading image data of a reference member;

a random noise suppressing module for suppressing random noise components in the image data of the reference member read by said image reading module; and

a detecting module for detects abnormality on the
5 reference member based on the image data having random noise components suppressed by said random noise suppressing module.

9. A control program according to claim 8, wherein said random noise suppressing module suppresses
10 random noise components by averaging the read image data of the reference member.

10. A control program according to claim 8, wherein said random noise suppressing module suppresses random noise components by carrying out an
15 interpolation process on the read image data of the reference member.

11. A control program according to claim 10, wherein said random noise suppressing module comprises a delay module for delaying the read image data of the
20 reference member, and an interpolation module for carrying out the interpolation process on the read image data of the reference member and the image data delayed by said delay module.

12. A control program according to claim 8,
25 further comprising a shading correction module for carrying out a shading correction based on the read image data of the reference member, and wherein said

random noise suppressing module suppresses random noise

components in the image data on which the shading

correction has been carried out by said shading

correction module.

5   13.   A control program according to claim 8,

further comprising a shading correction module for

carrying out a shading correction based on the image

data having random noise components suppressed by said

random noise suppressing module, and wherein said

10   detection module detects abnormality on the reference

member based on the image data on which the shading

correction has been carried out by said shading

correction module.

        14.   A control program according to claim 8,

15   wherein said random noise suppressing module is

executed only when abnormality is to be detected on the

reference member by said detection module.